GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:1715
ANSWERED ON:26.07.2017
Earthquake Prediction
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Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether any emergency response system is in place for earthquake prediction;

(b) if so, the accuracy with which it could be predicted;

(c) whether the Government has urged the Indian scientists/ISRO to undertake research for earthquake prediction system and if so, the details thereof;

(d) whether the Government has reached any agreement with other foreign countries for joint working on this issue; and

(e) if so, the details thereof and if not, the reasons therefor?

Answer

THE MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)

(a-b) No Madam. To date, there is no proven scientific technique available, anywhere in the world, to predict the occurrence of earthquakes with reasonable degree of accuracy with regard to space, time and magnitude. However, an Earthquake Early Warning (EEW) system exists for issuing warning based on recording of P-waves and that too after the occurrence of an earthquake. It has limited response time varying from a few seconds to little more than a minute depending on system network design in the epicentral area region and target city. Fully organized protocol exists between National Centre for Seismology (NCS) and the various designated disaster management authorities at the centre and state levels for dissemination of earthquake information.

(c) No Madam. However, as part of R & D initiatives, ISRO is working on identifying earthquake precursors using space based inputs. RADAR Interferometry and studies on surface deformations related aspects using Synthetic Aperture Radar (SAR) are being explored.

(d-e) No Madam. As there is no scientific technique available anywhere in the world to predict the occurrence of earthquakes with reasonable degree of accuracy with regard to space, time and magnitude. Nevertheless, efforts are being made world-over including India, to monitor and study various earthquake precursory phenomena in critical seismotectonic regions, which would not only help understand the earthquake generation processes better but also lead to identifying possible earthquake precursors, which may serve as useful predictors in future.